12/18/06

# Exhibit E

# ENVIRONMENTAL REPORTS

# PHASE I ENVIRONMENTAL SITE ASSESSMENT "TOWNE BUILDING and LAND" THREE CHARTER ROAD ACTON, MASSACHUSETTS

February 24, 2003

Prepared For:

Massachusetts Housing Partnership Fund Two Oliver Street Boston, Massachusetts 02109

GEC

Goldman Environmental Consultants, Inc. 60 Brooks Drive Braintree, MA 02184-3839 781-356-9140 FAX 781-356-9147

EMail: goldmanenvironmental.com

# TABLE OF CONTENTS

<u>SECTION</u>	<u>P</u> /	AGE
1.0	INTRODUCTION	1
2.0	SITE DESCRIPTION.  2.1 Site Location	2 3 4
	2.7 Land Use History	6 8
3.0	REGULATORY HISTORY	9 9
4.0	PREVIOUS REPORTS	14
5.0	SITE CONDITION	15 15 16
	5.6 Solid Waste	18 18 18
6.0	FINDINGS	19
7.0	OPINION	
8.0	CONCLUSIONS	22
9.0	WARRANTY	24
	<u>FIGURES</u>	
Figure 1:	Site Locus Map	
Figure 2:	Assessor's Map	
Figure 3:	Site Plan	
Figure 4A-4C:	Sanborn Fire Insurance Maps	
•	APPENDICES	
Appendix A:	Sources of Information	
Appendix B:	Environmental FirstSearch Report	
Appendix C:	Site Photographs	
Appendix D:	Supporting Documentation	

## 1.0 INTRODUCTION

Goldman Environmental Consultants, Inc. (GEC) of Braintree, Massachusetts has been retained by Massachusetts Housing Partnership Fund of Boston, Massachusetts to evaluate environmental issues within the scope of MGL Chapter 21E, and the Massachusetts Contingency Plan (MCP) for the property identified as Three Charter Road, Acton, Massachusetts, hereafter referred to as the "Site". GEC's investigation was conducted to understand potential environmental conditions in order to satisfy due diligence requirements associated with a real estate transaction.

The purpose of GEC's Site assessment was to identify and define recognized environmental conditions arising from the use, treatment, storage, generation, disposal, or release of oil or hazardous materials (OHM) on the Site and abutting properties. Emphasis was placed on determining the general presence of equipment likely to contain polychlorinated biphenyls (PCB), friable asbestos and good housekeeping practices with respect to the handling of oil and hazardous materials. No sampling and analysis of asbestos containing materials was conducted. GEC inspected all readily accessible areas of the property including the interior and exterior portions of the Site building during the performance of this investigation.

This report is intended for use by Massachusetts Housing Partnership Fund and its designees. GEC understands that Massachusetts Housing Partnership Fund is relying on the conclusions drawn from this investigation for evaluation of environmental liability in connection with the Site.

The results of this survey are based on the following. A list of sources of information is provided as Appendix A.

- A visual inspection of the Site and a review of pertinent records;
- A general survey of Site abutters and properties in the immediate vicinity;
- Discussions with Mr. Dean Charter, Director, Tree Warden of the Town of Acton and Site contact;
- Interviews with, and records search at the Town of Acton Fire Department, Board of Health, Conservation Commission, Town Clerk, Building Department, Engineering Department and Assessor's Office;
- A records search of historical documents maintained at the State House Library in Boston, Massachusetts;
- A records search at the Massachusetts Department of Environmental Protection (MADEP) at the Central Regional Office in Worcester, Massachusetts;

- An electronic search via FirstSearch Technology Corporation (Environmental FirstSearch Report) of state and federal database files; and
- A review of a Final Report for The Asbestos Abatement Project, AHERA
  Third Three Year Re-Inspection Report and AHERA Three Year ReInspection Report dated September 30, 1998, November, 1998 and April 5,
  2002, respectively.

# 2.0 SITE DESCRIPTION

## 2.1 Site Location

The location of the Site is provided below. The Site and properties within the vicinity are zoned "R-2" for residential use. NOTE: The Towne School, identity of the Site building, is listed with the Assessor's Office as Three Charter Road. Other town offices identify the Site as One Charter Road, 13 Charter Road, 15 Charter Road and 431 Massachusetts Avenue. For the purposes of this report GEC will refer to the Site as Three Charter Road. Also, due to the discrepancy in addresses and additional schools within the immediate vicinity of the Site, records reviewed may not accurately depict conditions at the Site. Refer to Figure 1 for the Site Locus and Figure 2 for the Assessor's Map.

	Location	Comments, References
Street Address	Three Charter Road	
Town	Acton	
County	Middlesex	
State	Massachusetts	
USGS 7.5 Minute Quadrangle	Maynard	1
Latitude and Longitude	42° 28' 30" north 71° 27' 22" west	2
Assessor's Map	Lot no. 85 Assessor's Map no. F-3	3

# 2.2 Activity and Use Limitations

During the file search and Site interview, GEC attempted to determine whether an Activity and Use Limitation (AUL), either in the form of an Environmental Notice, a Grant of Environmental Restriction, or an MADEP-implemented Environmental Restriction, had been filed for the Site pursuant to MGL Chapter 21E and the MCP [310 CMR 40.1000]. The following sources of information were used to determine whether an AUL exists for the Site: (1) information provided by Mr. Charter, Site contact; (2) the MADEP for documentation on Response Action Outcome Statements, a Notice of

Activity and Use Limitations, Grant of Environmental Restrictions, and an Environmental Restriction; and (3) local agencies consisting of the Board of Health and Building Department.

Activity and Use Limitations	Yes/No	<b>Description</b>
Were any Activity and Use Limitations	No	
identified for the Site?		

# 2.3 Physiographic Setting

The Site is situated approximately one hundred seventy (170) feet above Mean Sea Level and is relatively level. Topographic relief across the Site is estimated to be less than ten feet. According to National Flood Insurance Map, Community Panel #250176 0004C, dated January 6, 1988, the property lies in an area outside the 500-year floodplain (Zone X). Properties east of the Site across Main Street are situated within the 500-year floodplain.

Unnamed wetlands and a stream, likely associated with the Fort Pond Brook, are located approximately 1,000 to 2,000 feet northeast. Additional wetlands and streams likely associated with Fort Pond Brook are located 1,500 feet west, southwest and 2,000 feet east of the Site, respectively. Great Hill is situated approximately 1,500 to 3,000 feet southeast of the Site.

Feature 4	Discharge Point	
Regional Surface Drainage	Toward catch basins situated north of the Site along a paved access road as well as south and east of the Site along Massachusetts Avenue and Main Street.	FO
Site Surface Drainage	Toward catch basins situated north of the Site along a paved access road as well as south of the Site along Massachusetts Avenue.	FO
Regional Groundwater Flow	South and east of the Site toward wetlands associated with Fort Pond Brook.	FO, Q
Site Groundwater Flow	South and east of the Site toward wetlands associated with Fort Pond Brook.	FO, Q

Reference: FO = Field observation; Q = Interpretation of USGS 7.5 minute quadrangle; SSI (ref. no.) = Subsurface investigation with reference number of the report.

Due to temporal and spatial variations, subsurface conditions and possible manmade obstructions, GEC is unable to determine definitively local groundwater flow direction with the available information.

# 2.4 Site Description

Although the Assessor's field card indicated the Site consists of 5.90-acres, recent renovations to the surrounding area, which include an access road and paved parking area, have reconfigured the area. Also, an addition, which was recently demolished, was situated off the northeast corner of the Site building and extended further northeast off, what GEC believes to be the current property line. Based on information provided by the Town of Acton Engineering Department, the Site consists of 1.23-acres. The Site is currently owned by the Town of Acton and is improved by one two-story building. The Site, formerly known as the Towne School, an elementary school, was vacated within the last few months. The Site building consists of classrooms and a boiler room. The remainder of the Site consists of landscaped areas as well as a playground.

# 2.4.1 Structures, Improvements and Land Area

Provided below is information regarding the building location and construction. The location of the Site building is shown on Figure 3.—

Description	Site Building	Reference
Building Identity	Three Charter Road	3
Date Built	1926	3
Building Footprint Size	Approximately 9,300-square feet	3
Slab or Basement	Basement (situated beneath the northwest corner of the building)	3
No. Stories, Excluding Basement	Two	3
Type Construction, e.g., wood frame, steel frame, concrete/masonry	Brick	3
Construction Materials: Ceilings (e.g., tile, suspended)	Suspended ceiling tile and drywall/plaster ceilings.	3
Construction Materials: Floor (e.g., tile, cement, carpet)	Vinyl floor tile, concrete floor (within basement), carpeting and ceramic floor tile.	3
Construction Materials: Walls	Cinder block walls, ceramic wall tiles and drywall/plaster walls.	3
General Housekeeping	Good	
Additions	An addition off the northeast corner of the Towne School building, known as the McCarthy wing was constructed during the 1950's and was demolished within the last ten months. Refer to Section 2.7 for details.	3

## 2.4.2 Utilities

The Site building is currently and has historically been serviced by the municipal water system. No information was found to indicate the historic on-Site use of a private well. A private septic system currently services the Site building. According to information provided by the Board of Health and Engineering Department, the septic system is situated south of the Site building. GEC was unable to locate information pertaining to the size or capacity of the tank and Title V inspections of the system. According to Mr. Charter and the Board of Health, municipal sewer currently services the surrounding properties and the Site is expected to convert to the municipal service. KeySpan Energy currently provides natural gas to the Site for heat. According to available information the Site building was formerly heated with fuel oil stored within an underground storage tank (UST) and coal. Refer to Section 5.1 for details. NSTAR provides electricity to the Site.

# 2.5 Description of Abutting Properties

GEC conducted a limited visual reconnaissance of abutting and nearby properties to evaluate the potential for releases of OHM to impact the Site. Roadways and other properties abutting or proximal to the Site are described below. Based on the reconnaissance, no evidence of improperly stored or disposed OHM, staining or spills were observed at abutting or nearby properties, unless described below.

**Abutting Properties** 

Direction	Distance (Miles)	Identity and Address of Property. or Roadway.	Operations/OHM usage; treatment; generation; storage or disposal.
North	Abutter	Paved Access Road and parking lot for the Parker Damon Building	
North, northeast	Beyond access road & parking lot	One Charter Road Parker Damon Building (elementary school)	OHM use likely limited to consumer quantities of paints, cleaners and similar products.
West	Abutter	Charter Road (roadway)	
Northwest	Beyond Charter Road	16 Charter Road Raymond J. Grey Junior High School	OHM use likely limited to consumer quantities of paints, cleaners and similar products.
West	Beyond Charter Road	Tennis Courts	
South	Abutter-	Massachusetts Avenue (roadway)	

Direction	Distance (Miles)	Identity and Address of Property or Roadway	Operations/OHM usage, treatment, generation, storage or disposal
Southwest	Beyond Massachusetts Avenue	Rear entrance to K-Mart located at 252 Main Street	OHM use likely limited to consumer quantities of paints, cleaners and similar products. Listed State spill site. Refer to Section 3.1 for details.
South	Beyond Massachusetts Avenue	432 Massachusetts Avenue Baker-Whitney Oil Company (office/distribution center)	OHM use likely limited to consumer quantities of paints and cleaners as well as the underground storage of fuel oil for distribution. Registered UST site, refer to Section 3.1 for details.
South, southeast	Beyond Massachusetts Avenue	428 Massachusetts Avenue Verizon Communications (office building)	OHM use likely limited to consumer quantities of paints, cleaners and similar products. Registered UST, RCRA Generator & State spill site. Refer to Section 3.1 for details.
East	Abutter	Main Street Law Offices	OHM use likely limited to consumer quantities of paints, cleaners and similar products.
East	Abutter	Main Street Redstone Town Houses (residential)	OHM use likely limited to household quantities of paints, cleaners and similar products.

# 2.6 Proximity of Environmental Resource Areas

Environmental resource areas include wetlands, surface waters, Areas of Critical Environmental Concern (ACEC), habitats of Threatened or Endangered Species, or Species of Special Concern, Certified Vernal Pools, Potentially Productive Aquifers (PPA), Sole Source Aquifers (SSA), Interim Wellhead Protection Areas (IWPA) or Zone II's of public water supply wells, or private water supply wells.

The Site and surrounding vicinity are situated within an area of protected open space. Unnamed wetlands and a stream, likely associated with the Fort Pond Brook, are located approximately 1,000 to 2,000 feet northeast. Additional wetlands and streams likely associated with Fort Pond Brook are located 1,500 feet west, southwest and 2,000 feet east of the Site, respectively. Great Hill, an area of protected open space, is located approximately 1,500 to 3,000 feet southeast of the Site. No other environmental resource areas, including ACEC, IWPAs or SSAs, were identified within 1,000 feet of the Site.

# 2.7 Land Use History

The land use history for the Site and vicinity was developed based on the following sources of information: the Site contact, Mr. Dean Charter; information provided to GEC by the Massachusetts Housing Partnership Fund; the Acton Assessor's

Office; Sanborn Atlases reviewed at the State House Library; City Directories reviewed at the State House Library; and the Acton Building Department. An attempt was made to develop the land use history back to 1890. These sources were consulted to determine whether evidence of a historical recognized environmental condition exists for the Site.

According to available information and interviews with persons familiar with the Site, the Towne School (Site building) was developed during the 1920's. The school during this timeframe was utilized as the Acton High School. During the 1950's, the Towne School was converted to an elementary school and an addition was constructed along the northeast corner of the Site building, which extended further northeast of the Site. The addition was known as the McCarthy wing and consisted of one-story and a basement. The two buildings became known as the McCarthy-Towne School and were utilized as an elementary school. In the spring of 2002 the entire McCarthy structure was demolished and the Towne School was vacated within the following months.

A paved access road and parking lot were constructed and/or renovated for access to the Damon Parker Building, a school. A third school, situated in the immediate vicinity and known as the Merriam-School, has also been demolished. The junior high school and the high school are situated further northwest and north of the Site along Charter Road.

GEC reviewed Sanborn Fire Insurance Maps for the Town of Acton dated 1929, 1945 and 1953. Refer to Figures 4A through 4C for copies of the maps. According to the maps dated 1929 and 1945 the Site was improved with the current Site building utilized as the Acton High School. Properties situated east of the Site along Main Street and south of the Site along Massachusetts Avenue were partially developed with residential dwellings.

According to the map dated 1953, the McCarthy wing had been constructed. The Towne School was listed the same as the previous maps as the Acton High School. Properties situated east of the Site along Main Street and south of the Site along Massachusetts Avenue consisted of residential dwellings and a restaurant.

GEC reviewed City Directories for the Town of Acton, however available directories did not contain a listing of street names.

GEC reviewed records for the Site maintained by the Acton Building Department. Building Department records for school buildings were listed by name of school, however due to the discrepancy of address listings for all schools within the area, the file may not contain accurate information. GEC reviewed one permit on file dated May 14, 2002 for the demolition of the McCarthy School. No additional building permits pertaining to renovations or construction were on file.

# 2.8 Inspection of Building Interiors

On November 12, 2002, GEC conducted a visual inspection of the Site. Mr. Charter accompanied GEC. During the inspection, GEC interviewed Mr. Charter for information pertaining to Site history, facility operations, and waste handling practices. The Site inspection did not include an inspection behind walls, above ceilings or under floors. GEC inspected all readily accessible areas of the property during the performance of this investigation.

The Site building is improved with two floors and a basement. The basement consists of two small rooms situated beneath the northwest corner of the building. The basement contains the gas-fired boiler system. The first floor consists of classrooms, restrooms, two large open rooms and a storage closet. According to Mr. Charter the large open rooms were formerly utilized as a gymnasium many years ago. GEC observed sealed containers varying in size of cleaning products within the storage closet. The second floor of the building consists of classrooms, a teacher's lounge/coatroom and storage closets.

GEC did not observe evidence of a release or threat of release during the inspection of the interior of the Site building. Provided below is information regarding building interiors not provided elsewhere in the report.

Building Interior	Yes / No.	Comments :
Does general Site appearance suggest	Yes	The Site is currently vacant.
good housekeeping practices?		
What are the current Site usages and		The Site was formerly utilized as an elementary
operations?		school.
Are industrial processes conducted at	No	
the Site? If yes, describe.		
Are any of the floors dirt? If yes,	No	
indicate whether there is evidence of		
historic or current fuel oil or OHM		
usage, storage or disposal on or near the		
dirt floor.		

# 2.9 Inspection of Building Exterior

GEC inspected the Site exterior to determine whether evidence suggests that OHM may have been used, treated, generated, stored or released at the Site. Other information pertaining to the building exterior can be found throughout the report.

A chain-linked fence surrounds the east and south boundaries of the Site. Landscaped areas surround the Site to the south, west and north. Paved walkways are situated north and south of the Site, which lead to entrances of the Site building. A playground containing a basketball court, swings and jungle gym is situated east of the Site building.

A post indicator valve, the exterior power switch for the sprinkler system, is located southwest of the Site building. According to persons familiar with the Site, a private septic system is situated south of the Site building. GEC and Mr. Charter, the Site contact, searched for manhole covers, which would indicate the location of the system, however due to fallen leaves the grounds surface was obstructed. A padmounted transformer, situated on a concrete pad, was observed along the west, northwest corner of the Site building. The gas meter (enclosed with a chain-linked fence) and a sewer clean-out pipe were observed near the northeast corner of the Site. Refer to Appendix C for Site photographs.

Building Exterior	Yes / No	Comments
Were any monitoring wells or other monitoring devices observed?	No	
Was there evidence of surficial staining?	No	
Did vegetation appear stressed?	No	
Were there soil piles or evidence of filling	No	However, according to persons familiar with
activities?	and a second control of the second second	the Site two USTs were removed from the
		northeast portion of the McCarthy wing,
		which is not within the Site boundaries. Fill
		dirt may have been brought onto the Site to
		fill in the excavation.

# 3.0 REGULATORY HISTORY

GEC conducted file searches with the Massachusetts Department of Environmental Protection (MADEP) and agencies of the Town of Acton relative to the Site on November 5 & 7, 2002 and November 12, 2002, respectively. State and federal databases were accessed during an Environmental FirstSearch run on October 29, 2002 through FirstSearch Technology Corporation's database program. The Environmental FirstSearch Report is attached as Appendix B. GEC makes no representations on the accuracy of the information provided by third parties nor did GEC conduct any further independent investigations of spill incidents or sites noted herein.

# 3.1 Site Regulatory History

Provided below is a summary of the file search findings for the Site. Case incident, Site, or other identifying numbers are provided in the chart.

**Subject Site** 

Is the Site on any of the following lists?	Yes / No	Description	References
Federal NPL list	No	。在1965年,1965年的1965年,1965年1965年(1965年)	2
Federal CERCLIS list	No	<b>以解析。如那些数别的原则是对于</b>	2
Federal CERCLIS NFRAP list	No		2
Federal RCRA CORRACTS facilities list	No		2
Federal RCRA non-CORRACTS TSD facilities list	No		2
Federal RCRA Generators list	No		2
Federal ERNS lists	No		2
State list of hazardous waste sites	No		2
State spill or release incidents list, prior to 1990	No		2
State spill or release incidents list, since 1990	No		2
Registered UST list	No	CONTROL WAS CONTROL OF THE PERSON OF THE PER	2
State landfill and/or solid waste disposal site list	No		2

The following table summarizes the results of GEC's file search at local agencies of Boston.

<u>Local Agencies</u> Information regarding environmental conditions at the Site	Yes / No.	Description
Fire Department (see below)	Yes	<ul> <li>Permit #3738 dated 3/31/92 for the removal of a 5,000-gallon #2 fuel oil UST.</li> <li>Permit #3739 dated 3/31/92 for the removal of a 5,000-gallon #2 fuel oil UST.</li> </ul>
Board of Health	Yes	Records indicate that a septic system is located on-Site and the tank is pumped regularly. However information did not include the size or capacity of the tank nor were any Title V inspection reports noted.
Conservation Commission	No	

Based on the information provided to GEC, both the Towne and McCarthy buildings were heated with fuel oil. Plans depicting the McCarthy-Towne School indicate that a UST was situated near the northeast corner of the McCarthy wing. Although the school has been demolished, GEC has determined that this area is within the current location of the access road and is not situated within the portion of the Towne School property that is part of this investigation (i.e., the Site). Officials of the town have indicated that two USTs were removed from this area not one. Additionally officials have also indicated that the Towne School was heated with coal prior to fuel oil. Although, officials have indicated that the USTs are not located on the Site, GEC has not

found any documentation confirming that two USTs were removed from the northeast corner of the McCarthy wing.

# 3.2 Site Vicinity Regulatory History

Provided below is a summary of the file search findings for properties located in the vicinity of the Site. Further information on incidents occurring within 0.20-miles of the Site is provided subsequent to this table, and within Appendix B. All distances referenced in the following paragraphs are based on information provided by FirstSearch.

Site Vicinity

Are there any of the followingincidents?	Yes / No	Number of Incidents	References
Federal NPL sites within 1.0 miles of the Site	No		2
Federal CERCLIS list sites within 0.5 miles of the Site	No		2
Federal CERCLIS NFRAP list at adjoining properties	No		2
Federal RCRA CORRACTS facilities list within 1.0 miles of the Site	No		2
Federal RCRA non-CORRACTS TSD facilities within 0.5 miles of the Site	No		2
Federal RCRA Generators list at adjoining properties	Yes	One	2
Any properties within 1.0 mile of the Site listed on the State list of hazardous waste sites	Yes	Seven	2
Any State spill or release incidents reported for locations within 0.5 miles of the Site, prior to 1990	Yes	Two	2
Any State spill or release incidents reported for locations within 0.5 miles of the Site, since 1990	Yes	Twenty-five	2
Any registered USTs at adjoining properties	Yes	Two	2
Any properties within 0.5 miles of the Site on the State active or inactive landfill list	No		2

Provided below is additional available information regarding properties identified on any of the above lists and located within 0.20-miles of the Site. Case incident, site, or other identifying numbers are provided in the chart. For each disposal site or spill incident the status of the incident, nature, and magnitude of the release is provided, when available. For RCRA generators, RCRA treatment, storage or disposal facilities, and NPDES permitted facilities, the status of each is provided as well as whether a notice of violation is indicated in the Environmental FirstSearch Report. For underground storage tanks (USTs), the number, age, capacity, and contents of the tanks are provided, whether the tanks are removed or closed, and whether there was any indication of leakage (based on a subsurface investigation or failed tightness test).

Property Identification,	Incident Description			
Address, and Direction and	ancident Description			
Distance from the Site				
Baker-Whitney Oil Company	• Registered UST site 0-000029. Four 10,000-gallon fuel oil			
432 Massachusetts Avenue	USTs removed, removal dates unknown. Two in-use 20,000-			
South abutter	gallon fuel oil USTs and one in-use 1,000-gallon diesel UST,			
Likely crossgradient of the Site	installation dates unknown.			
Bell Atlantic Central Office	Registered UST site 0-000021. Two 750-gallon USTs removed,			
428 Massachusetts Avenue	one 2,000-gallon diesel UST removed. One in-use 650-gallon			
Southeast abutter	diesel AST.			
Likely crossgradient of the Site	RCRA NLR (no longer regulated) site MAD98511141. No			
	violations listed.			
·	• State spill site 2-10079. A release of diesel fuel was			
	encountered during the removal of a UST in 1993, which			
	triggered a 72-hour reported obligation. Soil analytical results			
	indicated contamination above reportable concentrations.			
	Approximately 30 cu/yds of soil was excavated. No volatile			
	organic compounds (VOCs) were detected in groundwater			
	above reportable concentrations. Soil sampling results			
	identified total petroleum hydrocarbons (TPH) concentrations			
	below reportable concentrations and no volatile aromatic			
	compounds (VACs) or TPH were detected above Method 1			
	Standards in groundwater. A Class A-2 Response Action Outcome (RAO) was submitted in 1994.			
K-Mart / Penske Auto Center				
252 & 252B Main Street	<ul> <li>State spill site C92-0171. Release of unknown amount of unknown material occurred 4/19/092, reported 4/20/92. Closed.</li> </ul>			
South, southeast abutter	RCRA Generator site MA5000002816. Generates less than 100			
Likely crossgradient of the Site	kg/month of hazardous waste.			
	RCRA Generator site MAD85275387. Generates 100-1,000			
	kg/month of hazardous waste.			
Acton Boxborough High School	• State spill site 2-11393*. A release of approximately 30-gallons			
14 Charter Road	of waste oil from an AST overfill was reported 9/3/96. The			
500 feet north	release impacted the concrete floor and flowed beneath the			
Likely crossgradient of the Site	concrete foundation to soil behind the building. Speedi dry was			
	applied within the building and the exterior. Approximately 3			
	cu/yds of impacted soil was excavated. Soil analytical results			
The state of the s	revealed concentrations of TPH of 60 ppm to 933 ppm. TPH			
	exposure point concentrations were calculated which indicated a			
	"level of no significant risk". A Class A-2 RAO was submitted			
	11/12/96.			
Meineke Muffler	• State spill site C92-0123. Listed as state spill site 2-12283.			
263 Main Street	Several USTs were removed from the property in 1984 along			
0.11 miles southeast	with impacted soil. Total xylenes and 1,3,5-trimethylbenzene			
Likely downgradient of the Site	were detected in soil samples. During the installation of a septic			
	system in 1992 additional contamination was encountered.			
	Samples analyzed for VOC, metals and Oil & Grease were non-			
	detect. No further details available.			

Property Identification, Address, and Direction and Distance from the Site	Incident Description
Bowladrome 257 Main Street 0.12 miles southeast Likely downgradient of the Site	• State spill site 2-12032. A release of #2 fuel oil during the removal of 2,000-gallon UST was reported 12/16/97. Approximately 22 cu/yds of soil was excavated and removed. Analytical results of soil were below Method 1 Standards. Residual contamination remained beneath the building. Groundwater sampling revealed that Extractable Petroleum Hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) were below Method 1 Standards. A Class A-2 RAO was submitted in 1998.
Sunoco Station 421 Massachusetts Avenue 0.13 miles east Likely downgradient of the Site	• State spill site C89-0085. Release of gasoline reported 2/18/89. Listed as state disposal site 2-0745. In 1989 a subsurface investigation was implemented to determine conditions at the property. Elevated TPH were detected in soil. Benzene, toluene, ethylbenzene and xylenes (BTEX) were detected in four groundwater monitoring wells. Non-aqueous phase liquid (NAPL) was detected in one well. Approximately 20 cu/yds of soil was excavated. NAPL was pumped from the well. Four 4,000-gallon gasoline USTs, two 550-gallon waste oil USTs and one 550-gallon fuel UST were removed as well as 1,900 tons of impacted soil and 5,800-gallons of groundwater was removed from the excavation. A NPDES Exclusion Permit was issued and approximately 35,800-gallons of water was treated and discharged. Groundwater contamination decreased during the sampling round events and soil contamination remaining on site is located at a depth of two to ten feet. A Class A-3 RAO was submitted in 1999 and an Activity and Use Limitation (AUL)
	<ul> <li>was implemented.</li> <li>State spill site C89-0235. Release of unknown amount of gasoline reported 5/4/89.</li> <li>ERNS site D31135/425227. Release of petroleum due to equipment failure reported 6/21/93.</li> <li>State spill site C93-0380. Release of gasoline due to overfill reported 8/5/93.</li> <li>Registered UST site 0-000812. Three in-use 10,000-gallon gasoline USTs and one 85-gallon waste oil AST.</li> <li>RCRA NLR site MAD000638163. No violations listed.</li> <li>State spill site 2-11201. A release of 20-40 gallons of gasoline was reported 4/18/96. Gasoline impacted pavement and trench drain. Speedi dry was applied and approximately 580-gallons of water/gasoline were pumped from the trench. Three 55-gallon drums of speedi dry and soil mix were removed from the trench. A Class A-1 RAO was submitted 5/23/96.</li> </ul>
Intersection of Routes 111 & 27 Massachusetts Avenue 0.13 miles southeast Likely downgradient of the Site	• State spill site 2-13519. During the installation of a sewer line, gasoline impacted soils were encountered. EPH, naphthalene and TPH exceeded reportable concentrations in soil. Under an Utility Release Abatement Measure (URAM) approximately 350 cu/yds of soil were excavated.
CVS 393 Massachusetts Avenue 0.16 miles southeast Likely downgradient of the Site	RCRA generator site MAR000015560. Generates 100-1,000 kg/month of hazardous waste

Property Identification, Address, and Direction and Distance from the Site	Incident Description
Acton Boxboro High School Hayward Road/36 or 16 Charter	• State spill site 2-13502*. Approximately 30-gallons of diesel fuel released from a truck was reported 10/2/00. The release
Road 0.20 miles north	impacted the asphalt surface and a catch basin. Speedi dry was applied to the pavement and absorbent pads were placed within
Likely crossgradient of the Site	the catch basin. Approximately 165-gallons of water was removed from the catch basin. A Class A-1 RAO was submitted 12/8/00.
	• State spill site 2-14265*. A release of approximately 50-gallons of non-PCB (polychlorinated biphenyls) oil from a transformer was reported 4/10/02. Sand was placed over the release area. A light oil sheen was observed within a floor drain. Absorbent pads were placed within the floor drain. Four 55-gallon drums
	of sand, absorbent pads and speedi dry were removed from the property. A Class A-1 RAO was submitted 6/3/02.

<sup>\* =</sup> As indicated earlier, GEC noted discrepancies regarding the addresses of the school buildings. GEC determined the distance and direction of the releases based on available information provided by the MADEP and GEC's knowledge of the area.

Non-geocoded properties are properties identified on federal and state listings by town and zip code, but for which the exact location for these properties relative to the Site is unknown. GEC reviewed addresses of non-geocoded properties through FirstSearch Technology Corporation. No properties were identified through the database search as likely located within approximately ½-mile of the Site.

Provided below is information obtained from local agencies regarding nearby properties.

Local Agencies  Information regarding. environmental conditions at properties within 0.2 miles of the Site.	/No	Property address, location Description and distance
Fire Department	No	
Board of Health	No	
Conservation Commission	No	

## 4.0 PREVIOUS REPORTS

GEC was not provided with previous reports of the Site pertaining to environmental conditions. Mr. Charter obtained asbestos inspection/abatement reports along with building plans of the McCarthy-Towne School. Refer to Section 5.3 for a summary of the asbestos reports.

## 5.0 SITE CONDITION

# 5.1 Underground Storage Tanks

During the Site inspection, GEC searched for evidence of the current and historic use of above ground storage tanks (AST) and USTs. GEC searched for the features or situations, which could indicate the current or prior existence of ASTs or USTs.

GEC did not observe ASTs or indications of USTs such as fill and vent pipes or pavement scars during the Site inspection. According to information provided by the Massachusetts Housing Partnership Fund and Mr. Charter, the Site building was formerly heated with #2 fuel oil stored within an UST.

The Acton Fire Department provided the following information:

- Permit #3738 dated 3/31/92 for the removal of a 5,000-gailon #2 fuel oil UST.
- Permit #3739 dated 3/31/92 for the removal of a 5,000-gallon #2 fuel oil UST.

As indicated earlier plans depicting the McCarthy-Towne School indicate that a UST was situated near the northeast corner of the McCarthy wing approximately 300 feet from the Site boundary. Although the school has been demolished, GEC has determined that this area is within the current location of the access road and is not situated within the portion of the Towne School property that is part of this investigation. Based on information provided by public officials this UST was removed without incident, however no reports could be located indicating analytical results of confirmatory samples. Town officials have also indicated that two USTs were removed from this area, however plans reviewed by GEC depicted one UST at this location. Officials have indicated that coal was used to heat the Towne School prior to the addition of the McCarthy wing. GEC found no documentation confirming this as a heat source. Refer to Appendix D for copies of the information provided from the Acton Fire Department.

## 5.2 Floor Drains and Stormwater Drains

The interior and exterior of the Site were inspected for the presence of catch basins, dry wells, storm drains, or floor drains. GEC did not observe any catch basins, drywells or storm drains within the immediate vicinity of the Site.

Floor drains were observed within the restrooms of the building. No floor drains were observed within the basement of the building. The floor drains reportedly discharge to the on-Site private septic system.

# 5.3 Asbestos Containing Materials (ACM)

Mr. Charter provided GEC with three reports pertaining to asbestos abatement and sampling. The first report, entitled Final Report for the Asbestos Abatement Project at McCarthy-Towne School, dated September 30, 1998 was prepared by Universal Engineering Corporation (Universal) for the Acton Public Schools. According to the report abatement activities consisted of the removal and disposal of ACM vinyl asbestos tile and mastic within the kitchen. According to an "Asbestos Disposal & Documentation Form" five yards of ACM was removed from the building. Based on GEC's inspection of the Site and interview with Mr. Charter the kitchen was situated within the McCarthy wing, which has since been demolished.

The second report, entitled AHERA Third Three Year Re-Inspection Report at Acton McCarthy-Towne School dated November 24-25, 1998 was prepared by Universal for the Acton Public Schools. On November 24, 1998 Leonard J. Busa, a state-certified asbestos inspector at Universal conducted a re-inspection and asbestos sampling of the Site building. Samples were collected from homogeneous areas throughout each building. Homogeneous areas are classified as materials of similar appearance and texture. Samples of miscellaneous materials (consisting of floor tiles, ceiling tiles and adhesives) and thermal system insulation (material applied to pipes, fittings and boilers) were collected and analyzed from select areas throughout the building. analyzed with thermal system insulation were collected from beneath the ceiling, i.e. ceiling tiles were not removed and items above the ceiling, if any, were not tested. According to the summary chart provided with the report "0%" was listed for all areas analyzed with the exception of thermal system insulation within the area identified as Toilet 6 (situated along the east side of the building) which was listed as positive for asbestos, however the summary does not identify what type of asbestos or what percentage is considered positive. Areas where positive percentages of chrysotile and amosite (forms of asbestos) were detected were located within the McCarthy wing.

The third report, entitled AHERA Three Year Re-Inspection Report at McCarthy-Towne School dated April 5, 2002 was prepared by Universal for the Acton Public Schools. On April 5, 2002 Dan Obrzut, a state certified asbestos inspector conducted a re-inspection of building materials originally inspected in 1998. Based on the observation, all asbestos containing building materials (ACBM) were found to be in fair

to good condition and should be maintained in good condition. "The ACM is scheduled to be removed as part of the demolition project of the McCarthy School". No additional reports were on file. Refer to Appendix D for copies of the reports prepared by Universal Engineering Corporation.

During the Site inspection, GEC made observations for building materials likely to be ACM. Sample collection and confirmatory optical analyses were not performed, and were beyond the scope of this investigation. During inspection of the Site building GEC made attempts to view insulation materials and behind walls whenever possible, without being invasive. GEC assumed that any suspected ACM encountered during the survey was constant throughout the building between floors, behind walls, and in ceiling spaces. GEC observed the following materials throughout the building: suspended ceiling tiles and drywall/plaster ceilings; vinyl floor and ceramic floor tiles; and drywall/plaster walls and ceramic wall tiles.

# 5.4 Oil and Hazardous Materials (OHM)

This section supplements information provided in Sections 3.1 and 5.1.

OHM Use and Storage	Yes / No	Description
Is OHM use and storage limited to consumer quantities of cleaning materials, paints and similar products, unless otherwise indicated in Section 3.1 or 5.1?	Yes	GEC observed several sealed containers of cleaning products within a storage closet.
Are there any hazardous material storage permits?	No	
Are there Material Safety Data Sheets maintained on-Site?	No	
Is there a Community Right-to-Know plan on-Site?	No	
Are there safety plans; preparedness and prevention plans; spill prevention, counter measure, and control plans?	No	

## 5.5 Waste Oil and Hazardous Waste

During the Site inspection, GEC made observations for evidence of the treatment, storage, disposal, or generation of hazardous waste and waste oil, including the improper disposal of oil or hazardous material. No waste oil or hazardous waste is currently or has historically been generated on-Site.

## 5.6 Solid Waste

During the Site inspection, GEC made observations for evidence of proper and improper solid waste disposal at the Site. The Site is currently vacant, therefore no solid waste is generated. No evidence of the improper disposal of solid waste was noted at the time of GEC's inspection.

#### 5.7 Wastewater

During the Site inspection, GEC made observations for evidence of the generation, treatment, or discharge of wastewater, including the improper disposal of wastewater. Sanitary wastewater generated on the Site is currently and has been historically discharged to a private septic system. Information on file with the Board of Health indicated that the system was pumped regularly, however no information was on file pertaining to the size, capacity or Title V inspections of the septic system.

# 5.8 Polychlorinated Biphenyls (PCBs)

During the Site inspection, GEC made observations for equipment likely to contain PCB oil. Equipment likely to contain PCB oil includes electrical transformers, capacitors, hydraulic equipment and oil switches. Dry-type transformers typically do not contain PCBs.

GEC observed a pad-mounted transformer adjacent to the northwest corner of the Site building. The transformer is situated on a concrete pad. Two pole-mounted transformers were observed southeast and southwest of the Site along Massachusetts Avenue. The ages of the transformers are unknown, however the transformers appeared to be in good condition during the Site inspection with no signs of leakage.

## 5.9 Lead Paint

GEC conducted an inspection of building surfaces within inspected areas throughout the Site building for the potential presence of lead-based paint. Although the building is unoccupied and prior use has included an elementary school, based on conversations with Massachusetts Housing Partnership Fund, the Site will be converted for residential use. GEC observed painted walls, doorways and windows sills throughout the building. Painted surfaces appeared to be in good condition at the time of the inspection. No information was found within municipal and school department records

indicating that surfaces throughout the Site building had been sampled and analyzed for lead.

## 6.0 FINDINGS

At the request of Massachusetts Housing Partnership Fund, GEC conducted an Environmental Site Assessment of the Three Charter Road property located in Acton, Massachusetts. This survey consisted of a surficial Site inspection, interviews, and review of available information at state and local agencies. GEC's investigation did not include any testing or analysis of surficial or subsurface media, or building materials.

# Site Conditions

- Based on information provided by the Town of Acton Engineering Department, the Site consists of 1.23-acres. The Site is currently owned by the Town of Acton and is improved by one two-story building. The Site, formerly known as the Towne School, an elementary school, was vacated within the last several months. The Site building consists of classrooms and a boiler room. The remainder of the Site consists of landscaped areas as well as a playground.
- Properties surrounding the Site to the north, northeast and northwest consist of schools. Residential and commercial properties are situated east and south of the Site.

## Site History

- According to available information and interviews with persons familiar with the Site, the Towne School (Site building) was developed during the 1920's. The school during this timeframe was utilized as the Acton High School. During the 1950's, the Towne School was converted to an elementary school and an addition was constructed along the northeast corner of the Site building, which extended further northeast of the Site. The addition was known as the McCarthy wing and consisted of one-story and a basement. The two buildings became known as the McCarthy-Towne School and were utilized as an elementary school. In the spring of 2002 the entire McCarthy structure was demolished and the Towne School was vacated within the following months.
- Properties in the immediate vicinity were developed during the early 1900's and have consisted of residential and commercial properties.

# Sensitive Land Uses / Environmental Resources

• The Site and surrounding vicinity are situated within an area of protected open space. Great Hill, an area of protected open space, is located approximately 1,500 to 3,000 feet southeast of the Site. No other environmental resource areas, including ACEC, IWPAs or SSAs, were identified within 1,000 feet of the Site.

# Polychlorinated Biphenyls (PCB)

GEC observed a pad-mounted transformer adjacent to the northwest corner of the
Site building. The transformer is situated on a concrete pad. Two pole-mounted
transformers were observed southeast and southwest of the Site along
Massachusetts Avenue. The ages of the transformers are unknown, however the
transformers appeared to be in good condition during the Site inspection with no
signs of leakage.

# Storage Tanks

- GEC did not observe ASTs or indications of USTs such as fill and vent pipes or pavement scars during the Site inspection. According to information provided by the Massachusetts Housing Partnership Fund and Mr. Charter, the Site building was formerly heated with #2 fuel oil stored within an UST.
- Fire Department records indicate that two 5,000-gallon #2 fuel oil USTs were removed from the McCarthy School in 1992. Information reviewed by GEC indicates that one UST was situated near the northeast corner of the McCarthy wing. Town officials indicated that two USTs were removed from this area, however GEC has not found documentation confirming this.
- Records viewed via Environmental FirstSearch and town agencies located three
  properties with registered USTs within 0.20-miles of the Site. Based on
  interpretation of topography and the USGS quadrangle these properties appear to
  be cross- and downgradient of the Site.

#### Solid Waste

The Site is currently vacant, therefore no solid waste is generated. No evidence
of the improper disposal of solid waste was noted at the time of GEC's
inspection.

## Hazardous Materials and Waste

 Other than consumer quantities of cleaners, GEC did not observe the storage of OHM.  No waste oil or hazardous waste is currently or has historically been generated on Site.

#### Asbestos

- GEC observed the following materials throughout the building: suspended ceiling tiles and drywall/plaster ceilings; vinyl floor and ceramic floor tiles; and drywall/plaster walls and ceramic wall tiles.
- According to AHERA inspection reports provided to GEC, no positive results for ACM were found within the Site building, with the exception of Toilet 6 (situated along the east side of the building). The thermal system insulation within this area tested positive for asbestos, however no information was provided on the identity and what percentage was considered positive.

#### Lead Paint

• Although the building is unoccupied and prior use has included an elementary school, based on conversations with Massachusetts Housing Partnership Fund, the Site will be converted for residential use. GEC observed painted walls, doorways and windows sills throughout the building. Painted surfaces appeared to be in good condition at the time of the inspection. No information was found within municipal and school department records indicating that surfaces throughout the Site building had been sampled and analyzed for lead.

## Filesearch

- GEC found no CERCLIS or NPL sites within ½-mile of the Site.
- Six state disposal sites and twenty-seven spill sites of OHM are located within a ½-mile radius of the Site. Several releases have occurred within the immediate vicinity of the Site. The Acton Boxborough High School, which is situated approximately 0.20 miles north of the Site, is a listed state spill site. Three releases have occurred within 500 feet to 0.20 miles of the Site associated with this property. A release of waste oil from an AST overfill occurred in 1996 impacting the concrete floor and soil behind the building. Speedi-dry was applied as well as three cubic yards of impacted soil was excavated. A Class A-2 RAO was submitted to the MADEP. Two additional releases for which Class A-1 RAO were submitted to the MADEP occurred in 2000 and 2002.
- Additional releases, which have occurred abutting to or within 0.13 miles of the
   Site, have been delineated and have achieved regulatory closure. Based on the

- cross-/downgradient location of these properties to the Site, subsurface conditions at the Site are unlikely to have been impacted by the off-Site releases.
- Based on topography and interpretation of the USGS quadrangle, groundwater flow in the vicinity of the Site is likely to the south and east toward Fort Pond Brook.

#### 7.0 OPINION

GEC can make no definitive conclusion regarding current on-Site subsurface conditions relative to a release of OHM. However, based on available information the Site building was formerly heated with fuel contained within an UST. Information indicates that two USTs were removed from the McCarthy-Towne School. Based on historic plans GEC has determined that one UST was situated northeast of the McCarthy wing (approximately 300 feet from the Site boundary) while the location of the second UST could not be determined. Town officials have also indicated that two USTs were removed from this location however no documentation could be located confirming this. To date no additional information has been obtained regarding this USTs.

#### 8.0 CONCLUSIONS

GEC has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 of Three Charter Road located in Acton, Massachusetts, the property. Any exceptions to, or deletions from, this practice are described in Section 1.0 of this report.

GEC identified the following conditions for the Site. These conditions are not considered recognized environmental conditions in accordance with ASTM Standard E1527-00.

• GEC observed the following materials throughout the building: suspended ceiling tiles and drywall/plaster ceilings; vinyl floor and ceramic floor tiles; and drywall/plaster walls and ceramic wall tiles. The materials appeared in good condition at the time of GEC's inspection. According to inspection reports provided to GEC, no positive results for ACM were found within the Site building, with the exception of Toilet 6 (situated along the east side of the building). The thermal system insulation within this area tested positive for asbestos, however no information was provided on the identity and what percentage was considered positive.

- Although the building is unoccupied and prior use has included an
  elementary school, based on conversations with Massachusetts Housing
  Partnership Fund, the Site will be converted for residential use. GEC
  observed painted walls, doorways and windows sills throughout the
  building. Painted surfaces appeared to be in good condition at the time of
  the inspection.
- Several releases have occurred within the vicinity of the Site, however the
  releases have been delineated and in most cases have achieved regulatory
  closure.

GEC identified the following conditions for the Site. These conditions are considered recognized environmental conditions in accordance with ASTM Standard E1527-00.

• Based on interviews with persons familiar with the Site, the Site building was formerly heated with fuel oil contained within an UST and coal. Fire Department records indicate that two USTs were removed from the McCarthy-Towne School. Based on historic plans GEC has determined that one UST was situated northeast of the McCarthy wing approximately 300 feet from the Site's border. Although no releases have been reported for this UST, due to the close proximity of the former UST to the Site, uncertainties of confirmatory samples as well as uncertainties surrounding the second UST, subsurface conditions at the Site may have been impacted by a release of OHM.

#### 9.0 WARRANTY

The conclusions contained in this report are based on the information readily available to GEC as of February 24, 2003. The scope of services for this investigation included those issues within the scope and meaning of Massachusetts General Laws, Chapter 21E and the associated Massachusetts Contingency Plan. The conclusions and recommendations may require revisions if future regulatory changes occur.

Compliance with other environmental and workplace statutes and regulations was not included in the approved scope of services. No representations regarding the condition of subsurface soils or groundwater quality at the Site can be made based on GEC's approved scope of services. GEC provides no warranties on information provided by third parties and contained herein. Data compiled was in accordance with GEC's approved scope of services and should not be construed beyond its limitations. Any interpretations or use of this report other than those expressed herein are not warranted.

The use, partial use, or duplication of this report without the express written consent of Goldman Environmental Consultants, Inc. is strictly prohibited. This report is subject to GEC's Contract for Consulting Services with the Client.

Respectfully submitted,

Goldman Environmental Consultants, Inc.

Prepared By:

Carla A. Wesley

Manager, Environmental Site Assessments

Reviewed/Approved By:

Samuel W. Butcher, LSP Vice President, Operations

P:\Projects\1176-Mass Housing Ptnr\1176-2010 Report.doc